

MULTIMEDIA



UNIVERSITY

STUDENT ID NO

<input type="text"/>									
----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------	----------------------

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2018/2019

MID1093 – RAPID MODELING (All sections / Groups)

17 OCTOBER 2018
2.30 p.m - 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question Paper consists of 3 pages with 5 questions only.
2. Answer **FOUR** out of the **FIVE** questions. All questions carry equal marks and the distribution of the marks for each question is given.
3. Please write all your answers in the Answer Booklet provided.

1. A) Discuss 3 advantages of rapid prototyping (RP). (9 marks)
B) Brief 8 usages of rapid prototyping. (16 marks)

(Total 25 marks)

2. A) Fill in the blanks in each of these statements:-

- i. JP System 5 builds model from _____ data using label _____ and a knife plotter. JP5 is a simple and _____ modeller for creating rough 3D models.
- ii. _____ Particle Manufacturing (BPM) is an old RP technology using printed wax models by firing _____ droplets of molten wax from a moving jet onto a stationary platform
- iii. The Model Maker (MM) system produces highly accurate wax patterns using _____ printing technology with molten wax.
- iv. _____ Modeling (MJM) produces wax prototypes using inkjet technology.
- v. Direct Shell Production (DSP) is based on three dimensional printing (3DP) using _____ as the primary builds material.

(16 marks)

B) Give full name to each of these rapid prototyping acronyms:-

- i. FDM
- ii. LOM
- iii. SLS

(9 marks)

(Total 25 marks)

Continued...

3. A) Discuss the advantages of FDM.
(20 marks)

B) Name 5 model printers that use FDM technology.
(5 marks)

(Total 25 marks)

4. A) The Ultimaker 2+ 3D printer has an open filament system. Discuss what open filament system is?
(6 marks)

B) Discuss 7 features of the Ultimaker 2+ 3D printer.
(14 marks)

C) List 5 Ultimaker 2+ 3D printer's supported materials.
(5 marks)

(Total 25 marks)

5. During the process of printing the 3D objects using FDM 3D printers. Warping may occur due to material shrinkage. Discuss 5 methods on how to minimize this issue.
(25 marks)

(Total 25 marks)

End of Paper